



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
687345, 418	10/28/95	NIZUBOGI	8375, 02F01

13M1/1119  
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EXAMINER	
GRIFFIN, S	
ART UNIT	PAPER NUMBER
130.5	

DATE MAILED: 11/19/95

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

08/548,418

Applicant(s)

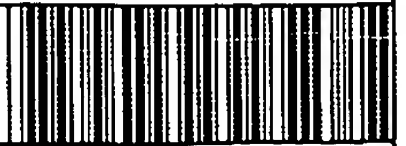
Mizusugi et al.

Examiner

Steven P. Griffin

Group Art Unit

1303



☒ Responsive to communication(s) filed on Sep 3, 1996

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 5-8 and 10 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 5-8 and 10 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1303

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. Claims 5-8 and 10 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5, lines 7-8, "said opposite side second suction chambers" lacks antecedent basis, it is believed that "opposite side" should be deleted to overcome this. Claim 5, lines 8-10, the recitation "opposite side areas of the sheet of glass being attracted and bent against the curved second shaping surface areas" is not clear in the context of the claim as this recitation lacks any nexus to the previously recited recitations in the claims, for instance, it is not clear if bending and attracting of the side areas of the glass sheets are a result of the vacuums which have been developed. Claim 5, lines 8-9, "opposite side areas of the glass sheet" is not clear what it is referring to as any opposite side areas of the glass sheet have not been positively recited.

Claim 6, line 2, the recitation of "opposite side areas" in is not clear if it is referring to the same opposite side areas

Art Unit: 1303

of claim 5 or different opposite side areas as no nexus has been provided. Claim 6, line 3, "said opposite side area" is not clear if it is referring to the opposite side areas of claim 5 or of line 2 of this claim.

Claim 10, line 10, "chamber" is misspelled. ✓

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order

Art Unit: 1303

for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

3. Claims 10 and 5-8 are rejected under 35 U.S.C. § 103 as being unpatentable over Seymour 4,229,200 in view of McMaster 4,609,391.

Regarding claims 10 and 5, Seymour essentially discloses the claimed method; see col. 11, line 57 to col. 12, line 31; note that the first vacuum developed in the element 40 (first suction chamber) of Seymour occurs prior to the application of a vacuum in curved shaping blocks 120 (second suction chambers) of Seymour which are located on opposite sides of the first suction chamber 40. Seymour fails to place the glass sheet on a ring mold to place the sheet under the suction mold. Seymour discloses a tempering station 12 for tempering the glass after bending, Seymour fails to discuss the particulars of the tempering steps. McMaster discloses a method for bending glass plates wherein a heated glass sheet (G) is placed onto a ring mold (42) and then the ring mold with the glass plate is moved beneath a suction mold (5) wherein the mold attracts the glass plate by suction and bends the glass plate, after bending McMaster further discloses that it is conventional to release the bent glass sheet from the suction mold onto a ring (56) for movement of the glass to quench station (24) to temper the glass

Art Unit: 1303

sheet. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a ring mold for transferring the heated glass sheet under the suction mold as in McMaster in order to provide for an efficient means for moving the heated glass sheet under the bending suction mold and to further use a quench ring as in McMaster in the method of Seymour in order to transfer the bent glass sheet to the quench station for tempering the bent glass sheet. Regarding claim 6, the sheet of Seymour is bent from the central region of the sheet to the side areas of the sheet. Regarding claim 7, Seymour discloses using a stretchable fabric covering such as a knit fiber glass fabric on the shaping surfaces to protect surface of the glass sheets (see col. 5, lines 50-55). Regarding claim 8, Seymour clearly shows the glass sheet as being planar prior to attraction (see Figs. 16-17).

4. Claims 10 and 5-8 are rejected under 35 U.S.C. § 103 as being unpatentable over Seymour in view of Kuster et al. 4,859,225.

Regarding claims 10 and 5, Seymour is applied as above. Seymour fails to place the glass sheet on a ring mold to place the sheet under the suction mold. Seymour discloses a tempering station 12 for tempering the glass after bending, Seymour fails to discuss the particulars of the tempering steps. Kuster '225

Art Unit: 1303

discloses a method for bending glass plates wherein a heated glass sheet (9) is placed onto a ring mold (33) and then the ring mold with the glass plate is moved beneath a suction mold (5) wherein the mold attracts the glass plate by suction and bends the glass plate after bending Kuster '225 further discloses that it is conventional to release the bent glass sheet from the suction mold onto a ring (support frame 48) for movement of the glass to tempering station (5) to temper the glass sheet. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a ring mold for transferring the heated glass sheet under the suction mold as in Kuster '225 in order to provide for an efficient means for moving the heated glass sheet under the bending suction mold and to further use a support frame/ring as in Kuster '225 in the method of Seymour in order to transfer the bent glass sheet to the tempering station for tempering the bent glass sheet. Regarding claim 6, the sheet of Seymour is bent from the central region of the sheet to the side areas of the sheet. Regarding claim 7, Seymour discloses using a stretchable fabric covering such as a knit fiber glass fabric on the shaping surfaces to protect surface of the glass sheets (see col. 5, lines 50-55). Regarding claim 8, Seymour clearly shows the glass sheet as being planar prior to attraction (see Figs. 16-17).

Art Unit: 1303

***Response to Amendment***

5. Applicant's arguments filed 9-3-96 have been fully considered but they are not deemed to be persuasive. In response to the argument that Seymour includes the step of dropping the glass to finalize bending it is considered that Seymour in view of either McMaster or Kuster discloses the invention as claimed, the fact that Seymour discloses additional method steps is irrelevant. Seymour teaches the forming of a glass sheet sequentially by first forming on the first suction chamber 40 and then sequentially forming the bent glass on second suction chambers 120.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action



Serial Number: 08/548,418

Page 8

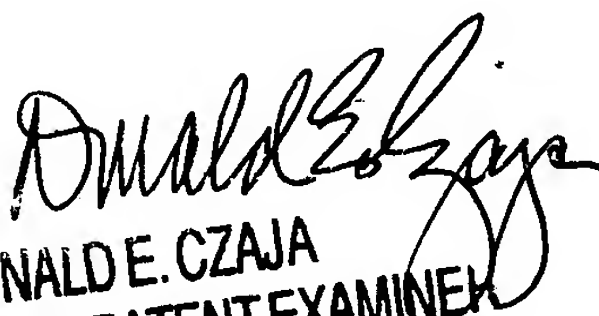
Art Unit: 1303

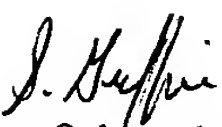
is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven P. Griffin whose telephone number is (703) 308-1164. The examiner can normally be reached on Monday-Thursday from 6:30 AM-4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Czaja, can be reached on (703) 308-3852. The fax phone numbers for this Group are (703) 305-7115, 7718, or 7719.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.

  
DONALD E. CZAJA  
SUPERVISORY PATENT EXAMINER  
GROUP 130

SPG   
June 24, 1996